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EXAMINER

CHOW, JEFFREY J

ART UNIT PAPER NUMBER

2672

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/814,401

Applicant(s)

HOLLOWBUSH ET AL.

Examiner

Jeffrey J. Chow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the flow chart in Fig. 2 does not properly supply the adequate information for a decision block. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES**Replacement Drawing Sheets**

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

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Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "display presentation chosen from the set consisting of: said complete picture, said picture image zoom and said tabular presentation; a selected pair of two of said complete picture, said picture image zoom and said tabular presentation; a selected one of said complete picture, said picture image zoom and said tabular presentation; and, at least one of said complete picture, said picture image zoom and said tabular presentation together with an additional information display containing at least one of graphics and text" in claim 21 must be shown or the feature(s) canceled from the claim(s). In other words, the drawings do not show all the following possible display presentation mentioned in the claim 21. No new matter should be entered.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “video processor has a plurality of display modes in which at least two of the selectable data images depict the area of particular scrutiny” in claim 2 must be shown or the feature(s) canceled from the claim(s). In other words, the drawings do not show all the following possible display presentation mentioned in the claim 2. No new matter should be entered.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “resizing engine” in claim 9 must be shown or the feature(s) canceled from the claim(s). In other words, the drawings do not show a resizing engine in claim 9. No new matter should be entered.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: In paragraph 69, picture zoom 44 is not in Fig. 2.

The drawings are objected to because dash-dot arrow is not in Fig. 2 as mentioned in paragraph 70.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

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drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract is not within the range of 50 to 150 words. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: Paragraphs, not limited to, 79 – 89 do not describe how the claims work because in most part, the paragraph themselves are paraphrases of the claims. Also, the paragraphs stated should not be a summary of the invention. The summary of the invention is handled in the summary section of the disclosure. Appropriate correction is required.

The disclosure is objected to because of the following informalities: The terms used for reference "22" are inconsistent and vague. "Input video signal " should be used for all reference "22" references instead of, not limited to, "input signal", "incoming video signal", "incoming signal", "full incoming signal", "incoming picture signal", "incoming original picture signal", "picture", and "image" in paragraphs, not limited to, 30 – 32, 34, 37, 38, 40, 42, 43, 46 – 48, 58, 61, 67, and 69. The terms used for reference "32" are inconsistent and vague. "multi-format display", should be used for all reference "32" references instead of, not limited to, "formatted

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display”, “display”, “display area”, “visual display”, “full display area”, “output frame”, “display device”, “part of an area”, “pixel information detail”, and “first supplemental display area” in paragraphs, not limited to, 32 – 36, 38, 40, 45 – 48, 51, and 52. “The terms used for reference “40” are inconsistent and vague. “Full display area of the input video signal” or something appropriate should be used for all references “40” instead of, not limited to, “quadrant”, “computer picture area”, “complete picture”, “display area”, “one part”, “resized version”, “resized complete image”, complete picture area”, “complete video picture”, and “full visual presentation of the video signal” in paragraphs, not limited to, “38, 45, 51, 58, 60, 61, 67 – 70, 75, 77, and 79. The terms used for reference “44” are inconsistent and vague. “Zoomed display area” and/or “first supplemental display area” should be used for all reference 44 references instead of, not limited to, “picture zoom area”, “area”, “zoomed picture”, “another area”, “zoom image”, “supplemental display area”, “zoomed cursor area pixels”, and “picture zoomed area” in paragraphs, not limited to, 46, 49, 51, 54, 58 – 61, 67, 69, 70, 75, and 77. The terms used for reference “48” are inconsistent and vague. “Second supplemental display area” and/or “pixel data tabular display area” should be used for all reference “48” references instead of, not limited to, “tabular report area”, tabular pixel display”, “pixel data area”, “pixel information area”, “cursor pixel tabular data”, “pixel tabular information area”, and “tabular selection area” in paragraphs, not limited to, 52, 56, 58, 70, 72, 75, and 77. The terms used for reference “42” are inconsistent and vague. “Cursor” should be used for all reference “42” references instead of, not limited to, “supplemental display area”, in paragraph, not limited to, 50. The terms used for reference “114” are inconsistent and vague. “Offending pixels” or something appropriate should be used for all references “114” instead of, not limited to, “automatically selected pixels”,

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“newly selected pixels”, and “number of points” in paragraphs, not limited to, 72 and 77. The following terms, not limited to, are not referenced and/or vague and should be appropriately referenced and/or corrected with the given standards stated above: “control inputs”, “controls”, “controller”, “video processor”, “video input signal”, “incoming pixel data values”, “complete input signal”, “full signal”, “signal”, “input signal”, “video input”, “video signal”, “area of the display”, “multi-format display output”, “output display”, “multi-format output”, “display device”, “one quadrant”, “output display quadrant”, “complete picture cursor are”, “picture zoom area”, “zoomed picture area”, “cursor”, “supplemental display area”, “zoomed picture portion”, “zoomed picture”, “zoom area”, “picture zoom display frame”, “zoom image”, “pixel swatch”, “automatically selected pixels”, and offending pixel” in paragraphs, not limited to, 35 – 89. “X-Y” for referencing cursor position and the window size should be more descriptive in order to not be confused with “Y” as luminous value and with each other. Suggestion is made to use “Xcord – Ycord” instead of “X-Y” for cursor position and “Width and height” instead of “X-Y” for the windows size. Appropriate correction is required.

The applicant is reminded under MPEP § 608.01(g) that the reference characters must be properly applied, no single reference character being used for two different parts or for a given part and a modification of such part. In the latter case, the reference character, applied to the given part, with a prime affixed may advantageously be applied to the modification. Every feature specified in the claims must be illustrated, but there should be no superfluous illustrations.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are stated above.

The disclosure is objected because it inadequately describes the possible display presentation mentioned in claim 21. No new matter is allowed.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Method and apparatus for analysis of digital video images on a multi-format display".

Claim Objections

Claim 1 is objected to because of the following informalities: In line 19 of claim 1, “selectably” is not a word. Suggestion is made to use “selectable” instead of “selectably”. Appropriate correction is required.

Claim 1 is objected to because of the following informalities: In line 7 of claim 1, “a nature of the information” is used and is considered redundant. Suggestion is made to use omit “a nature of” and just using “the information” instead of “a nature of the information”. Appropriate correction is required.

Claim 1 is objected to because of the following informalities: In lines 9 and 10 of claim 1, “the video processor is operable to produce selectable data images for presentation of the display device” is used. In lines 19 and 20 of claim 1, “the video processor is operable selectably to present on the display device a subset of the selectable data images” is used. These two statements are considered the same and seem redundant. These statements should be reworded to avoid confusion. Appropriate correction is required.

Claim 18 is objected to because of the following informalities: In lines 1 and 2 of claim 18, “A multi-format monitor for video signal analysis comprising video signal analysis and processing apparatus” is redundant. Suggestion is made to use “A multi-format monitor comprises video signal analysis and processing apparatus”. Appropriate correction is required.

Claim 21 is objected to because of the following informalities: In lines 6 and 7 of claim 21 says “a selected pair of two” is interpreted as four components. It is analogous of saying “a pair of couples”, which means four people. Examiner will view the claim as “a selected two”. Appropriate correction is required.

Claim 22 is objected to because of the following informalities: Parent claim of claim 22 does not exist and does not come before claim 22. Appropriate correction is required.

Claim 19 is objected to because of the following informalities: In line 3 of claim 19, the use of the word "fields" is very broad and very vague. Suggestion is to remove the word "fields". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21, and 23 – 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Lines 6 – 12 of claim 21 says “a selected pair of two of said complete picture, said picture image zoom and said tabular presentation; a selected one of said complete picture, said picture image zoom and said tabular presentation; and, at least one of said complete picture, said picture image zoom and said tabular presentation together with an additional information display containing at least one of graphics and text”. If said complete picture is not selected to display, the user does not know where the cursor is relative to the video image, therefore the values displayed, if able to displayed, are useless.

Claims 23 – 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Lines 4 – 7 of claim 23 says “selectively displaying the manual selected cursor position, and switchably displaying at least one automatically selected cursor position at which the data selection criterion is met”. There is no mention of switchably displaying windows in the specification and the drawings.

Claims 2 –6 are rejected under 35. U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Lines 2 – 3 of claim 2 says “at least two of the selectable data images depict the area of particular scrutiny”. If just the zoom image and the report of the video data characteristics are shown to display, as mentioned in claim 1, the user is not capable of analyzing the input video signal because the user does not know where and what to analyze from the full video signal since the user cannot see the full video signal, especially if the zoom image is capable to zoom to a 1x1 pixel area. In addition, the invention is not capable of doing video analysis as claimed if the full video signal is not displayed to be analyzed. Since the full video signal must be shown and the full video signal does not depict the area of particular scrutiny and the zoom image and the report of the video data characteristics are the only two selectable data images that depict the area of particular scrutiny, there is only one possible display mode for claim 2, which is already been described in claim 1. In further addition, lines 12 and 13 of claim 1 says “the full said video signal is selectively presented so as to occupy at least a part of a display area of the display device” is interpreted that the full video signal must be displayed.

Claims 1 – 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with using full, clear, concise, and exact terms. Line 2 of claim 1 uses “video signal input” and in line 1 of claim 7 uses “video input”. Suggestion is made to use “input video signal” for both situations.

Claims 1 – 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Lines 12 – 13 of claim 1 says, “the full said video signal is selectively presented so as to occupy at least a part of a display area of the display device” where the full video signal must occupy a part of a display area as stated, lines 9 – 10 in claim 1 says

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“the video processor is operable to produce selectable data images for presentation on the display device” where the full video signal is a selectable data images, and lines 19 – 20 in claim 1 says “the video processor is operable selectable to present on the display device a subset of the selectable data images” where all the selectable data images are selectable to be displayed. Claim 1 is a contradiction to itself as trying to selectable display the full video signal where it stated that it has to be displayed in lines 12 – 13 of claim 1.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1- 17, and 20 – 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said limited area" in line 18. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use “said area of particular scrutiny” instead of “said limited area.”

Claim 8 recites the limitation "a video sampler" in line 1. There is insufficient antecedent basis for this limitation in the claim. Suggestion is to add information about a video sampler in the specification and the drawings. Applicant is reminded that no new matter should be added.

Claim 9 recites the limitation "said part of the area of the display device" in line 2. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use “a part of a display area of the display device” instead of “a portion of a display area of the display device” in line 13 of claim 1.

Claim 10 recites the limitation "an area of particular scrutiny" in line 2. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use "the area of particular scrutiny" instead of "an area of particular scrutiny".

Claim 10 recites the limitation "said part of the area of the display device" in line 3. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use "a part of a display area of the display device" instead of "a portion of a display area of the display device" in line 13 of claim 1.

Claim 10 recites the limitation "the first supplemental display area" in line 10. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use "a first supplemental display area" instead of "the first supplemental display area." The applicant is reminded to properly mention "first supplemental display area in the specification.

Claim 15 recites the limitation "area of particular scrutiny" in line 3. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use "said area of particular scrutiny" instead of "an area of particular scrutiny".

Claim 17 recites the limitation "the second supplemental display area" in 2. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use "a second supplemental display area" instead of "the second supplemental display area". The applicant is reminded to properly mention "second supplemental display area in the specification.

Claim 18 recites the limitation "the display" in line 5. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use "a display device" instead of "a display signal" in line 2 and to use "the display device" instead of "the display" in line 5.

Claim 19 recites the limitation "a video signal input for providing a video signal" in line 2. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use "a input video signal for providing the video signal" instead of "a video signal input for providing a video signal".

Claim 13 recites the limitation "the video process" in line 2. There is insufficient antecedent basis for this limitation in the claim. Suggestion is made to use "the video processor" instead of "video process".

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

The applicant of the disclosed invention must amend the specification to add material supporting claims so that specification complies with first paragraph of 35 U.S.C. 112. Applicant is reminded that new matter cannot be added.

Claim Rejections - 35 USC § 103

Claims 1 – 11, 18, and 20 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthy in view of Lau.

Regarding to independent claim 1, Krishnamurthy discloses a computer system 10 that has a central processor 12, a display 14 and an interface 16, such as a keyboard and mouse (Column 2, lines 52 – 67 and Fig. 1). Krishnamurthy also discloses the computer system 10 is coupled to a digital processing system (DPS) 20 that includes at least one frame buffer. Krishnamurthy also discloses the DPS 20 is coupled to a video recorder 22 together with an associated component video monitor 24 (Column 2, lines 52 – 67 and Fig. 1). Krishnamurthy also discloses that the video file can be stored on the computer system 10, in the frame buffer of the DSP 20, and in the video recorder 22 (Column 2, lines 52 – 67 and Fig. 1). The frame buffer in the DPS 20 relates to the claimed input video signal, the DPS 20 relates to the claimed video processor, and the display 14 relates to the claimed display device, is coupled to the DPS 20, and is operable to display information from the frame buffer in the DPS 20. The computer system 10 relates to the claimed controller where the computer system 10 is coupled to the DPS 20 and at least one interface 16, such as a keyboard and mouse, which are relates to the claimed control input. The computer system 10 is capable to control the information displayed by the DPS 20. Krishnamurthy further discloses a display window 32 of panel display 30 (Column 3, lines 16 - 19 and Fig. 2). Below the display window 32 are status windows 37 that indicate the digital component values (YBR) of the pixel and includes pixel swatches of the pixel including the immediately preceding and following pixels on the same horizontal line (Column 3, lines 21 - 31 and Fig. 2). The display window 32 of the panel display 30 relates to the claimed input video

signal displayed on part of the display area. The status windows 37 that display various characteristics of the pixels relates to the claimed report of the video data characteristics of at least one point within the area of particular scrutiny. As such, Krishnamurthy does not disclose the selectable display window 32 and the selectable status windows 37 are display.

Krishnamurthy also does not disclose a separate zoom window. Lau discloses various display windows 54-62, a main window 50, within which a user selects one or more subordinate windows 52, each of which may be concurrently active at a given time (Column 7, lines 28 – 33 and FIG. 3). Lau also discloses the subordinate windows 52 may be opened or closed, moved or resized (Column 7, lines 33 – 34 and FIG. 3). Lau also discloses the subordinate windows 52, comprises of a video window 54, a zoom window 56, and one or more data windows 62 (Column 7, lines 40 – 43 and FIG. 3). The selectable zoom window 56 relates to the claimed zoom image that can be selectively displayed. It would have been obvious to one of ordinary skills in the art at the time of the invention to combine Krishnamurthy's system with Lau's teachings of a zoom window 56 and a video window 54 in order to display the input video signal and the zoomed portion of the input video signal at the same time, which would give the user better analysis of the video input signal. It would have also been obvious to one of ordinary skills in the art at the time of the invention to further combine Krishnamurthy's system with Lau's teachings of selectable displays in order to allow the display window 32 and the selectable status window 37 of Krishnamurthy's system to be opened, closed, resized and moved or selectively displayed, which would give the user increased flexibility in viewing the desired information.

Regarding to dependent claim 2, this claim additionally recites a plurality of display modes in which there are at least two images of particular scrutiny. At least one of, two of, or all of the selectable display window 32, the selectable status window 37, the selectable zoom window 56 (Lau) can be displayed in different variations, which relates to the claimed display modes.

Regarding to dependent claim 3, it is inherent that the selectable zoom window 56 (Lau) and the selectable status windows 37 present progressively smaller parts of the full video signal at the area of particular scrutiny.

Regarding to dependent claim 4, the information of the pixel displayed in the selectable status window 37 relates to the claimed tabular display, which in the disclosure of the disclosed invention the tabular display just shows information of the pixel data.

Regarding to dependent claim 5, Krishnamurthy further discloses the selectable status window 37 that indicate the (X,Y) pixel location (POS) of the cursor 36 (Column 3, lines 21 – 30 and Fig. 2). The (X,Y) pixel location (POS) of the cursor relates to the claimed sample location information. The information of the pixel displayed in the selectable status window 37 relates to the claimed color sample data.

Regarding to dependent claim 6, the pixel swatches in the selectable status window 37 relates to the claimed color swatch of the color sample data.

Regarding to dependent claim 7, Krishnamurthy further discloses a digital component domain image is stored in the frame buffer of the DPS 20 (Column 2, lines 61 – 63). The frame buffer of the DPS 20 relates to the claimed digital video signal. It is inherent that a digitized video signal increments at least one frame at a time and that each frame contains at least one of discrete sample data and discrete color state elements defining pixels.

Regarding to dependent claim 8, the video recorder 22 relates to the claimed video sampler. The video recorder 22 is operable to produce a digitized video signal. It is inherent that a digitized video signal increments at least one frame at a time and that each frame contains at least one of discrete sample data and discrete color state elements defining pixels.

Regarding to dependent claim 9, it is inherent that Krishnamurthy's system has a resizing engine capable of at least one of recalculating pixel values, sampling pixel values and reading out selected pixel value since Krishnamurthy's system with Lau's teachings is capable of displaying the input video signal to the selectable display window 32 of panel display 30.

Regarding to dependent claim 10, Krishnamurthy's system allows users to manually select from the input video signal an area in the selectable display window 32 of panel display 30 by using the interface 16, such as a keyboard and a mouse, to select the area of particular scrutiny. The DPS 20 is capable of simultaneously display the input video signal to the selectable display window 32 and the selectable zoom window 56 (Lau) of the area of particularly scrutiny.

Regarding to dependent claim 11, Krishnamurthy further discloses where the selectable display window 32, the selectable status window 37, and other components of his system are located on the panel display 30 (Column 3, lines 16 – 39). The DPS 20 is capable of displaying the selectable display window 32, the selectable zoom window 56 (Lau), and the selectable status window 37 at predetermined areas of the panel display 30. The DPS 20 is responsive to the interface 16, such as a keyboard and a mouse relates to the claimed user input selections, and the input video signal from the frame buffer of the DPS 20 relates to the claimed data values in the input video signal.

Regarding to independent claim 18, the selectable display window 32 of the panel display 30 relates to the claimed full visual presentation of the video signal in the display area less than the full area of the display device. The (X,Y) pixel location (POS) of the cursor 36 relates to the claimed cursor identifying the limited part of the visual presentation containing at least one pixel defined by one of a sample value and a discrete minimum size zone. The selectable zoom window 56 (Lau) relates to the claimed area zoom of the limited area and shows the local area surrounding the pixel. The selectable status windows 37 that display various characteristics of the pixels relates to the claimed pixel data zoom that contains numerical analysis of the pixel.

Regarding to independent claim 20, the selectable display window 32 displays the complete image of the input video signal at least in part of the main window 30, which relates to the claimed display area, and the cursor 36 identifies information of the pixel location of the picture. The selectable zoom window 56 (Lau) relates to the claimed limited area at and around the position of the cursor that is the zoom image presented on part of the display area. It is inherent that a zoom image enlarges an area of the complete picture compared to the complete picture. The selectable status window 37 display the cursor position, the appearance of the pixel swatches, and the pixel information of the pixel at the cursor position.

Regarding to dependent claim 21, at least one of, two of, or all of the selectable display window 32, the selectable status window 37, the selectable zoom window 56 (Lau) can be displayed in different variations, which relates to the claimed display presentations. Krishnamurthy's system with Lau's teachings contains pixel swatches, which relates to the claimed graphics, and numerical values of the pixel data, which relates to the claimed text, in the selectable status window 37.

Regarding to dependent claim 22, it is inherent that a zoom image is enlarged to present pixel as discrete blocks based on the nature of the zoom function. The zoom window 56 (Lau) has the claimed discrete blocks and has pixel information, which relates to the claimed data values.

Claims 12 - 17, 19, and 23 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthy in view of Lau and Abecassis.

Regarding to dependent claim 12, neither Krishnamurthy nor Lau teach a user input that define selection criteria where the video processor is operable to automatically select from the input video signal an area of particular scrutiny. Abecassis discloses a “first” image 1080 being transmitted to a display device, a target pointer 1091 in the displayed image 1090, where the user can move the target pointer 1091 to the desired target, 1092 (Column 41, lines 52 – 61 and FIG. 10D). Abecassis also discloses the target being centered on throughout the progress of the video, 1094, 1096, and 1097 (Column 41, lines 66 and 67, column 42, lines 1 – 30 and FIG 10D). It would have been obvious to one skilled in the art at the time of the invention to combine Krishnamurthy’s system with Lau’s teachings with Abecassis’ teachings to include an automatic zoomed tracking system that is user defined and is based on the input video signal meeting the user defined criteria, which provides an automatic functionality for the user to focus on a particular area of interest in the input video signal.

Regarding to dependent claim 13, Abecassis further discloses a flow chart target enabling 1100 and zoom enabling 1110, which both are controlled by the user (Column 43, lines 44 – 67, column 44, lines 1 – 27 and FIG. 11A). Abecassis further discloses if the user turns off target enabling 1100, then the tracking of the target is not automated (Column 43, lines 44 – 67, column 44, lines 1 – 27 and FIG. 11A). The option that allows the user to turn off the targeting system where tracking the target is not automated relates to the claimed manual selection that supercedes automatic selection. The ability for the user to switch from automatic selection to manual selection and vise versa relates to the claimed limited period of time.

Regarding to dependent claim 14, Krishnamurthy also discloses an error image window 42 with a lever 44 at the right for adjusting a level of IRE. Krishnamurthy further discloses that for all values of pixels that exceed the IRE level set by the lever 44, a selected color is displayed in the error image window 42. The level of IRE relates to the claimed threshold value of the color gamut. The values of pixels that exceed the IRE level relates to the claimed color gamut value criterion. Krishnamurthy's system with Lau's teachings with Abecassis' teaching is capable to target values of pixels that exceed the IRE level.

Regarding to dependent claim 15, the DPS 20 is capable of displaying the display window 32, the zoom window 56 (Lau), and the selectable status window 37 at predetermined areas of the panel display and at default automatically display information to the selectable status window 37 and the pixel swatch at a predetermined area of the display window 32 based upon the data in the input video signal. At least one of, two of, or all of the selectable display window 32, the selectable status window 37, the selectable zoom window 56 (Lau) can be displayed in different variations.

Regarding to dependent claim 16, recites two successive points representing one of pixels and samples from the area of particular scrutiny. The selectable status window 37 has pixel swatches of the selected pixel and the pixels immediately preceding and following the selected pixel. The selectable status window 37 also has data characteristics of the selected pixels.

Regarding to dependent claim 17, the video data characteristics displayed in the selectable status window 37, which relates to the claimed second supplemental display area, includes numerical values of the successive points and the video color characteristics of the successive points. Krishnamurthy's system with Lau's teachings with Abecassis' teachings has a

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zone that displays the video color characteristics in the selectable status window 37 by putting the information in an area of the selectable status window 37.

Regarding to dependent claim 19, it is inherent that a video signal input has at least one successive frame. The display 14, which relates to the claimed display device, is coupled to the DPS 20, which relates to the claimed video processor. The DPS 20 is operable to display information to the display window 32, which relates to the claimed display area. The computer system 10 relates to the claimed controller where the computer system 10 is coupled to the DPS 20 and at least one interface 16, such as a keyboard and mouse, which are relates to the claimed control input. The automatic zoomed tracking system that is user defined and is based on the input video signal meeting the user defined criteria relates to the claimed manual selection of the position of the cursor and is capable to automatically select the position of the cursor, based upon user selection criteria.

Regarding to dependent claim 23, Krishnamurthy's interface 16, such as a keyboard or a mouse, where the cursor 36 is used to select a position on the picture. Krishnamurthy's lever 44 that defines IRE relates to the claimed data selection criterion. Abecassis' automatic zoomed tracking system is user defined and is based on the input video signal meeting the user defined criteria.

Regarding to dependent claim 24, Lau discloses a cursor 110 in the video window 53 and a cursor 110 in the selectable zoom window 56.

Regarding to dependent claim 25, Krishnamurthy's system displays it's variable of the IRE value at the lever 44.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Chow whose telephone number is (571)272-8078. The examiner can normally be reached on Monday - Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703)272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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